



**THE DIRECTOR OF MOBILITY FORCES'
ROLE IN THE COMMAND AND
CONTROL OF AIR MOBILITY ASSETS
DURING HUMANITARIAN RELIEF
OPERATIONS**

GRADUATE RESEARCH PROJECT

Timothy E. Bush, Major, USAF

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DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY
AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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Examining the Director of Mobility Forces' Role
in the
Command and Control of Air Mobility Assets
During
Humanitarian Relief Operations

GRADUATE RESEARCH PROJECT

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Timothy E. Bush

Major, USAF

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Table of Contents

Acknowledgements	ii
List of Figures	iv
Abstract	v
Chapter I. Overview	1
Introduction	1
Problem Description	3
Research Question.....	4
Scope, Methodology and Limitations	5
Preview of Subsequent Chapters	6
Chapter II. Background	7
Humanitarian Relief Operations Defined	7
Roots of Humanitarian Air Mobility Operations	9
Expanding Military Role in HUMRO	11
Air Mobility Impact	13
HUMRO in permissive and nonpermissive environments	14
Evolution of Air Mobility C2 and the DIRMOBFOR	15
Air Mobility C2 Today	19
C2 in HUMRO.....	22
Current Role of the DIRMOBFOR.....	24
Assigning the DIRMOBFOR.....	25
DIRMOBFOR Training	27
Chapter III. Case Studies.....	28
Introduction	28
Operation Support Hope	28
Operation Fuerte Apoyo	32
Operation Atlas Response	36
Chapter IV. Conclusion	42
Summary	42
Conclusions.....	43
Recommendations for Further Study.....	46
Appendix A. Predesignated DIRMOBFOR List	48
Appendix B. Acronyms	49
Bibliography.....	52
Vita	56

List of Figures

Figure 2-1. Foreign Disaster Relief Operations	8
Figure 2-2. Airlift Corridors to Berlin	10
Figure 2-4. Pre-1992 Airlift Contingency C2 Structure	17
Figure 2-5. Theater C2 Post-Reorganization.....	18
Figure 2-6. Global Reach Lay-down Structure	19
Figure 2-7. Peacetime Control of Air Mobility Forces	20
Figure 2-8. Contingency C2 Relationships for Air Mobility Forces	21
Figure 3-1. Operation Support Hope AOR.....	29
Figure 3-2. Operation Support Hope Air Component C2.....	32
Figure 3-3. Operation Fuerte Apoyo AOR.....	33
Figure 3-4. Operation Fuerte Apoyo Air Component C2 Structure.....	34
Figure 3-5. Operation Atlas Response AOR.....	37
Figure 3-6. Operation Atlas Response Air Component C2 Structure.....	39

Abstract

The USAF is tasked to support contingency operations around the world. These operations range from major theater wars to humanitarian relief operations (HUMRO). Air Force doctrine recommends a command and control (C2) structure that permits the same organizational concept to be used throughout the spectrum of conflict, tailored to suit the specific operational objectives of a Joint Task Force (JTF). The Director of Mobility Forces' (DIRMOBFOR) purpose is to facilitate a smooth air mobility flow into, out of, and around an area of operations for the Joint Forces Air Component Commander or the JTF Commander. In a mobility centric operation such as HUMRO, the DIRMOBFOR's role is essential to shape the operation's C2 and to bridge the C2 gap between strategic air mobility forces based in the continental US and theater based air mobility forces. The paper examines the C2 of air mobility forces during Operations Support Hope, Fuerte Apoyo, and Atlas Response to better understand the role that the DIRMOBFOR plays in HUMRO.

Chapter I. Overview

Quite simply, air mobility is the guarantor of the American ability to apply force whenever the nation wishes, anywhere in the world.

Keith Hutcheson and Robert McClure (Hutcheson: 133)

Introduction

In a nationally televised press conference, President William J. Clinton emphasized the necessity of establishing air mobility operations in response to a crisis resulting from a civil war in Rwanda.

The flow of refugees across Rwanda's borders has now created what could be the world's worst humanitarian crisis in a generation...I've ordered the Defense Department to establish and manage an airlift hub in Uganda, which will be used as a staging area for around-the-clock operations for shipments of relief supplies to the refugees in the Rwandan border regions...I have directed the Defense Department to assist in expanding airlift operations near the refugee camps in Goma and Bakavu...I've ordered our military to increase the capacity to receive, transfer and distribute goods at these airfields. Our aim is to move food medicine and other supplies to those in need as quickly as possible. (Clinton, 1994)

This speech set in motion a humanitarian airlift operation to meet the needs of nearly three million refugees. Wherever there is suffering as a result of a humanitarian crisis or natural disaster, there is worldwide anticipation and expectation that a United States Air Force (USAF) transport aircraft will soon be delivering help and hope. Our national

security strategy outlined by President Clinton is, “founded on continued US engagement and leadership abroad.” Humanitarian interests are one of the three categories that define out national interests and drive our strategy (Office of the President, 1999: 1, 3). This strategy reinforces the world’s expectations for US aid and communicates America’s intention to remain involved in global events.

The US’s commitment and ability to help other nations in need benefits the US in many ways. During Operation Fuerte Apoyo, the Humanitarian Relief Operation (HUMRO) after Hurricane Mitch in Central America, the Nicaraguan Army Chief of Staff, General Joaquin Cuadra, commented that where other countries send words, America sends equipment. As a result of our commitment, Operation Fuerte Apoyo was the first official military-to-military contact with Nicaragua in over two decades (Packett, 2000: 1). US government involvement in humanitarian operations is a political decision that demonstrates national resolve. That resolve is often manifested by direct US military support to HUMROs. Despite significant force reductions and increasing continental US (CONUS) basing of our military, we continue to conduct humanitarian and peacekeeping operations in remote locations. Mobility, and most important, air mobility, is the great enabler for America to maintain its influence and project power across the spectrum of conflict, even though it is often not recognized as an essential element

of our foreign policy and national security strategy (Hutcheson, 1997: 132). When disaster strikes, the speed of reaction is often the most critical factor between life and death for thousands of people. Although sealift forces provide mobility, and in many instances provide more total lift capacity, it is the particular competence of airlift forces to most rapidly provide what is needed, where it is needed (AFDD 1, 1997: 34).

Problem Description

The USAF, specifically the air mobility arm, Air Mobility Command (AMC), provides the US unequaled power projection, often being the first to respond, quickly transporting national resources to contingency operations. USAF Doctrine Document 2 advises the theater Air Force component commander (AFCC) or the AMC commander to appoint a Director of Mobility Forces (DIRMOBFOR) to seamlessly integrate USAF strategic and tactical airlift assets into a contingency. The DIRMOBFOR's role is to shape the air mobility command and control (C2), and smooth the mobility flow in, around, and out of an area of operations (AO) (AFDD 2-6: 21). In contingency operations when hostilities occur and both combat air forces (CAF) and mobility air forces (MAF) are utilized, USAF doctrine is clear. In HUMRO when no CAF are employed, USAF doctrine is less specific and command relationships and responsibilities can become more difficult to understand. Despite

frequent deployment of air mobility forces around the world to support HUMROs, USAF employment and mobility operations doctrine devotes limited discussion to how air mobility operations and the role and focus of the DIRMOBFOR in HUMRO differ from that in armed contingencies.

Research Question

This paper examines the peculiar and crucial role of the DIRMOBFOR to facilitate strategic and tactical airlift integration into a HUMRO. What is the role of the DIRMOBFOR in USAF supported Humanitarian Relief Operations? The answers to the following investigative questions will support the conclusions to the primary research question.

1. What constitutes an USAF supported HUMRO and how does it differ from conventional military operations?
2. What is the existing role of the DIRMOBFOR, and what is the current process for employing the DIRMOBFOR in a HUMRO?
3. How has the DIRMOBFOR been employed in past HUMROs, and what were the operational implications?
4. What are the lessons learned from past HUMROs that can improve the process for employing the DIRMOBFOR in future HUMRO?

Scope, Methodology and Limitations

There is a vast amount of literature debating both the positive and negative repercussions and legitimacy of US military involvement in operations other than war, specifically HUMRO. This research paper does not explore that debate; rather it accepts historical precedence and the inevitability that the National Command Authority will direct the USAF to support future HUMROs. The paper concentrates on how to best organize and employ the DIRMOBFOR to leverage air mobility forces in these humanitarian crises.

The researcher used a qualitative methodology, literature review and personal interviews, to conduct this study. The USAF's and Joint Chiefs of Staff's current doctrine documents are used as the baseline for comparing textbook doctrine and employment processes against actual HUMROs. Interviews with veteran DIRMOBFORs in past HUMROs contributed experience-validated opinions that will help to shape the USAF process for employing air mobility assets and the DIRMOBFOR in future HUMROs.

This research focuses on one very particular USAF mission area, and only a small part of the DIRMOBFOR's overall responsibilities. The study concentrates on HUMROs in a permissive or non-hostile environment and does not examine HUMROs conducted in conjunction with armed conflicts, as was the case during Operation Allied Force. The

case studies are representative of operations conducted in foreign areas of responsibility (AOR) under unified commander in chiefs (CINC), but are not necessarily typical of support provided during crises in the CONUS such as Hurricane Andrew in 1992.

Preview of Subsequent Chapters

Chapter II addresses investigative questions one and two. It defines HUMRO, traces the evolution of the DIRMOBFOR and discusses some historical background of USAF participation in HUMROs. The chapter also differentiates HUMROs and armed contingencies and then outlines the current USAF process for employing a DIRMOBFOR to manage USAF air mobility operations in HUMROs. Chapter III examines some recent HUMROs and how the DIRMOBFOR was employed. The chapter focuses specifically on three HUMROs supported by USAF airlift and air refueling assets, Operations Support Hope, Fuerte Apoyo, and Atlas Response, capturing some of the lessons learned. These three operations were almost purely humanitarian in nature and the MAF comprised the preponderance of USAF aircraft involved. They highlight some unique challenges of conducting humanitarian operations under the current doctrinal framework. Chapter IV summarizes the conclusions drawn from the research for this project and recommends areas for further study.

Chapter II. Background

Air mobility assets provide the National Command Authorities an array of options to achieve national security objectives. Air mobility's unique characteristics of range, flexibility, and speed enable the US to posture forces decisively to stem aggression, demonstrate resolve, or send a strong message to deter potential opponents.

General Robert L. Rutherford
(Air Mobility Command, 1995: Forward)

Humanitarian Relief Operations Defined

Humanitarian relief operations encompass a wide array of USAF missions that can include conventional combat forces, special operations forces, and strategic and tactical airlift forces. For the purpose of this research, the definition of humanitarian relief provided by AFDD 2 is used.

Humanitarian Assistance/Disaster Relief Operations: These operations are conducted to alleviate natural or man-made disasters or other endemic conditions such as human pain, disease, hunger, or privation that might present a serious threat to life or result in great damage. (Generally, "humanitarian assistance" applies to such operations external to the US, while "disaster relief" occurs within the US) These operations may supplement or complement the logistics efforts of civil authorities who may have the primary responsibility for providing humanitarian assistance and frequently take the form of transport, supply, and distribution. (AFDD 2, 2000: 13-14)

This definition is accurate, however the specific application of "humanitarian assistance" and "disaster relief" seem misapplied when

couched in terms of foreign versus domestic operations. While “humanitarian assistance” within US borders is most often conducted by civilian organizations, there are numerous examples of USAF operations conducted external to the US as a result of “disasters.” Figure 2-1 highlights some recent operations conducted outside US borders in response to natural or manmade disasters. For the purpose of this study, the terms “disaster relief” and “humanitarian assistance” are considered synonymous.

Operation Name, Date	Purpose
Atlas Response, 2000	Flood aid to Mozambique
Avid Response, 1999	Earthquake aid to Turkey
Fuerte Apoyo, 1998	Hurricane Mitch, aid to Central America
Recuperation, 1998	Winter storm aid to Canada
Resolute Response, 1998	US Embassy bombings: Kenya/Tanzania
Typhoon Paka, 1997-1998	Typhoon Relief to Guam
Caribbean Express, 1995	Hurricane Marilyn aid to Caribbean
Egyptian Flood, 1994	Flood aid to Egypt
Snow Eagle, 1992	Avalanche aid to Turkey

Figure 2-1. Foreign Disaster Relief Operations
(Air Mobility Command Highlights and Haulman, 1998: 335,371)

The size of humanitarian relief varies widely depending on the severity of a particular crisis. US aid may consist of only one or two aircraft laden with relief supplies as was the case in the 1994 Egyptian Floods, or it might merit an entire operation with its own C2 structure, evidenced by

Operation Support Hope in the same year. In most humanitarian crises today, aircraft play a vital role. The use of air power in these crises has a history almost as old as the airplane itself.

Roots of Humanitarian Air Mobility Operations

The tradition of leveraging air power in HUMROs can be traced as far back as 1919, when US Army aircraft from Kelly Field, Texas, dropped food to marooned flood victims along the Rio Grande River. The use of air mobility in HUMRO on a grand scale began in the aftermath of World War II. Probably the most famous humanitarian airlift, Operation Vittles, began on June 24, 1948, in response to the Soviet Union's blockade of allied occupied West Berlin. All land-based access routes to the city of West Berlin were severed by the military blockade. The Soviet troops would not allow food, fuel or medicine transported by land into the allied sectors of the city. Figure 2-2 depicts the three air corridors from the allied occupied zones of Germany that formed the only supply routes to the desperate city. The most obvious recourse to avoid armed confrontation with our former ally, was to rely on the newly formed Military Air Transportation Service (MATs), under the command of then Major General William H. Tunner.



Figure 2-2. Airlift Corridors to Berlin
(United States Air Forces in Europe, 2000)

During the next year, the world witnessed the Allies flying over 270,000 sorties, transporting in excess of 2.3 million of supplies, at a cost of \$300 million. Operation Vittles sustained 2.2 million captive citizens of West Berlin with food, fuel, and moral stamina to survive the winter of 1948-1949 (Tunner, 1998: 222). Air mobility provided the means to defeat the communist blockade. The Berlin Airlift, still the single largest airlift operation in history, was the cornerstone event that defined our newest military service, the USAF, and the fledgling MATS.

The Air Force Historian, Richard P. Hallion, stated in his foreword to the 1998 reprint of Lieutenant General Tunner's book, Over the Hump,

The Berlin Airlift was the first great challenge—and the first humanitarian airlift—that the United States Air Force met as an independent service. Quite simply, had the Air Force not met the challenges of Berlin, the Cold War might have had a very different history and Western Europe might indeed have fallen under Communist thrall. (Tunner, 1998: iii).

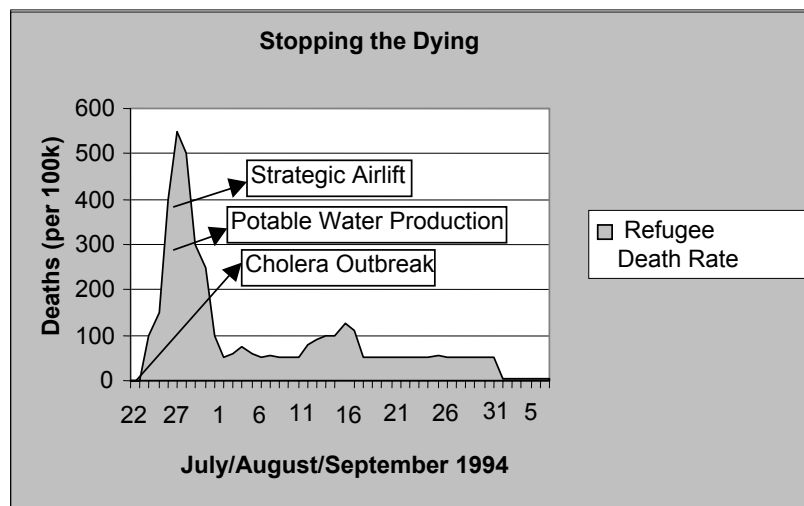
Expanding Military Role in HUMRO

The passing of the Cold War led to a global escalation of regional conflicts and unprecedented levels of brutality that is unimaginable for most Americans. During the Cold War, the USAF supported hundreds of HUMROs on a small scale, but military personnel generally played a limited role in delivering humanitarian aid or protecting human rights (Minear, 1995 and Haulman, 1998). The post-Cold War era was characterized by a reduced threat from the Soviet Union, and for the first time, the entire globe became the theater for US relief flights. Between 1947 and 1987, the USAF flew an average of less than 12 humanitarian airlifts a year. That average grew to more than 20 in 1991 and 1992 as communist governments across Eastern Europe collapsed (Haulman, 1998: 5). Many leaders in American government perceived that the reduced communist threat justified a subsequent reduction of US military forces, but an expanding military role in humanitarian relief

operations. Operation Provide Comfort in northern Iraq initiated the increasing involvement of military forces in HUMROs on a large and more frequent scale after the Cold War. The 1991 US-led initiative combined military forces from the United States, the United Kingdom, France and the Netherlands to provide relief to several thousand Kurdish refugees displaced by the Iraqi army after Operation Desert Storm. The overwhelming success of this and later military-initiated humanitarian operations have convinced some observers that the difference between humanitarian and military personnel is becoming more ambiguous (Minear, 1996: 27). In fact, it is logistically and politically unlikely that a major international humanitarian operation would be undertaken without strong American military participation or encouragement (Minear, 1995: 63). Andrew S. Natsios observes that the US military can project forces faster, farther, and in larger numbers than any other military organization. In many complex emergencies only the US maintains the logistical capability to provide relief, therefore if America does not act, nothing will happen (Natsios, 1997:106). Once US military forces are committed to a HUMRO, AMC provides the US's rapid response capability.

Air Mobility Impact

Operation Support Hope illustrates the profound impact that USAF air mobility can have in a HUMRO. On July 22, 1994, President Clinton authorized the Operation to provide, “Assistance to humanitarian agencies and third-nation forces conducting relief operations in-theater to alleviate the immediate suffering of Rwandan refugees.” US forces arrived in Goma, Zaire on July 25 and assessed that the most immediate need was for massive amounts of clean water. AMC responded by loading a reverse-osmosis water purification unit on a C-5 and flying non-stop, with three in-flight refuelings, from Travis AFB, California, to Goma. Potable water began flowing at 10:47 a.m., July 26, only one day after the arrival of the first US military troops. This purification unit provided the capability to filter 1.5 million gallons of water per day and virtually eliminated the cholera epidemic among the refugees (Minear, 1996:112 and Starr, 1995: xi). Figure 2-3 shows the drastic reduction of deaths attributed to clean water made possible by AMC aircraft. The USAF air mobility forces’ flexible and worldwide-response capability provided our political leaders not only the tools and timely leverage necessary to thwart aggression and promote stability, but more importantly, to save lives (Hutcheson, 1997: 135).



**Figure2-3. Impact of Potable Water
(Minear, 1996: 116)**

HUMRO in permissive and nonpermissive environments

HUMROs in nonpermissive or hostile environments are often overshadowed by concurrent combat operations. In these situations, the humanitarian crisis is usually a symptom of the armed conflict that must be addressed simultaneously, rather than the pure focus of the operation. The most recent example is the 1999 conflict between the North Atlantic Treaty Organization (NATO) partners and Serbia. During this conflict, Operations Shining Hope and Allied Force operated concurrently. Operation Allied Force was the air campaign waged to persuade Serbian President Slobodan Milosevic to withdraw military troops from Kosovo. Operation Shining Hope was the humanitarian mission that provided relief supplies to the more than 450,000 Kosovo-Albanian refugees in Albania and the Former Yugoslavian Republic of

Macedonia. The USAF focused primarily on prosecuting the air campaign in Serbia, not on delivering humanitarian aid to the refugees. Over a three-month period, AMC flew 124 missions to transport relief supplies and personnel for Operation Shining Hope, but airlift forces were organized specifically to support the HUMRO. Instead, they organized to support the combat operations of Allied Force.

A HUMRO in a permissive environment generally does not involve combat forces. The focus of the operation is not to defeat or defend with firepower, but to relieve human suffering. Thus, airpower is needed not for so much for its combat potential, as its air mobility potential. A review of Daniel L. Haulman's book, Humanitarian Airlift Operations: 1947-1994, shows that almost all HUMROs supported by USAF mobility aircraft in the time period did not involve combat air forces (Haulman, 1998). Although it is quite possible that USAF combat aircraft may operate in a supporting role to guard against hostile actions or provide covering fire if the purpose of the operation is to provide humanitarian assistance in a nonpermissive environment (AFDD 2, 2000: 68).

Evolution of Air Mobility C2 and the DIRMOBFOR

In order to appreciate the role of the DIRMOBFOR, it is important to understand how and why air mobility C2 is organized in its current form. The position of the DIRMOBFOR evolved as a result of the 1986

Goldwater-Nichols Defense Department Reorganization Act and the subsequent restructuring of USAF C2 in 1992. Prior to the reorganization, Military Airlift Command (MAC) had combatant command (COCOM) of all inter- and intra-theater airlift forces (also referred to as strategic and theater airlift forces). The Numbered Air Forces (NAF), 21st Air Force and 22nd Air Force, exercised operational control (OPCON) of all airlift forces in their respective AORs. MAC maintained two Airlift Divisions (ALD), one each in the Pacific and European theaters of operations, commanded by a MAC general officer during peacetime operations. During wartime or contingency operations, the ALD commander would become the Commander of Airlift Forces (COMALF) and exercise the OPCON delegated to the Commander of Air Force Forces (COMAFFOR), normally the theater Air Force Component Commander (AFCC), over both strategic and tactical air mobility assets assigned to their theater. During wartime or contingency operations, the COMALF reported directly to the theater AFCC instead of MAC (Melville, 1996: 7-8). Figure 2-4 illustrates these C2 relationships.

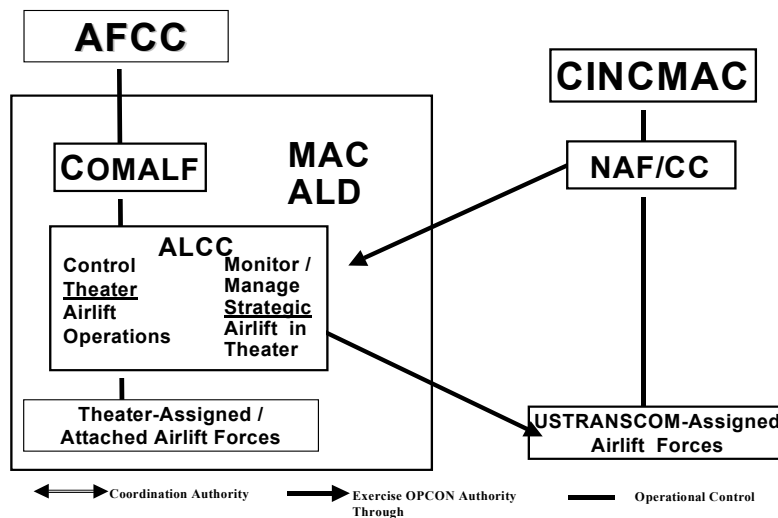


Figure 2-4. Pre-1992 Airlift Contingency C2 Structure
(Lambaria, 1996)

After the reorganization, only the geographical and functional CINCs retained COCOM. US Transportation Command (USTRANSCOM) commanded most strategic airlift aircraft (C-141, C-5) as well as tanker aircraft (KC-135, KC-10) and exercised OPCON through AMC. The geographical CINCs commanded most tactical airlift aircraft (typically C-130) and exercised OPCON through their AFCCs. This restructuring eviscerated the ALDs and Airlift Control Centers (ALCC) of personnel and equipment leaving a C2 void between the AFCC and air mobility assets assigned to the theater. Likewise, the loss of the COMALF position severed the C2 link between stateside strategic and theater air mobility forces. This organizational dysfunction is depicted in figure 2-5.

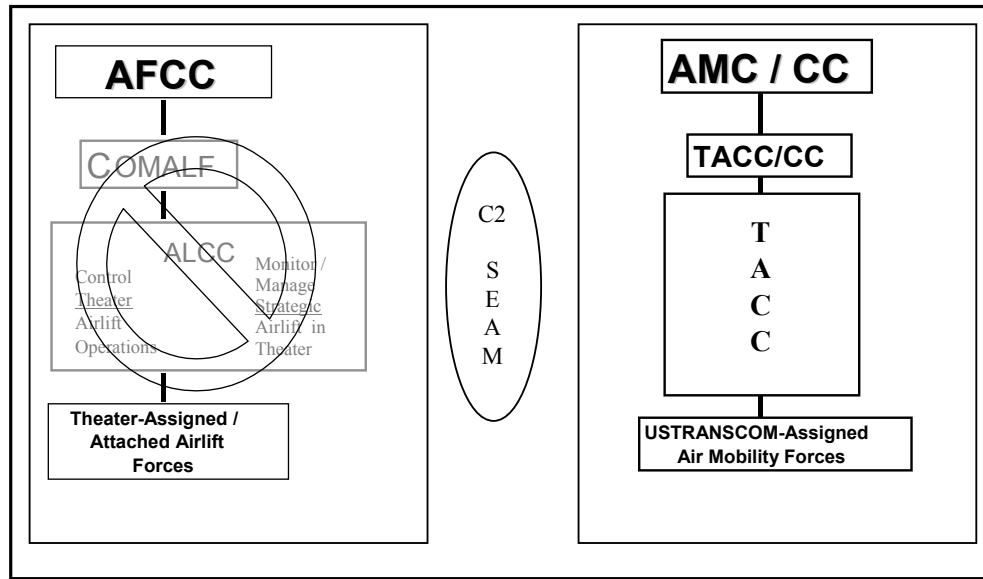


Figure 2-5. Theater C2 Post-Reorganization
(Adapted from Lambaria, 1996)

To inculcate mobility expertise into the theater, AMC appointed the DIRMOBFOR to advise the AFCC during contingency operations. The DIRMOBFOR did not command the air mobility forces, instead acted as the coordination link between the newly established Tanker Airlift Control Center (TACC) at Scott AFB, IL, and the theater commander. The new structure sought to provide a seamless interface between strategic mobility forces and theater mobility forces for the warfighter (Melville, 1996:7-10). Figure 2-6 shows the revised mobility forces C2 structure.

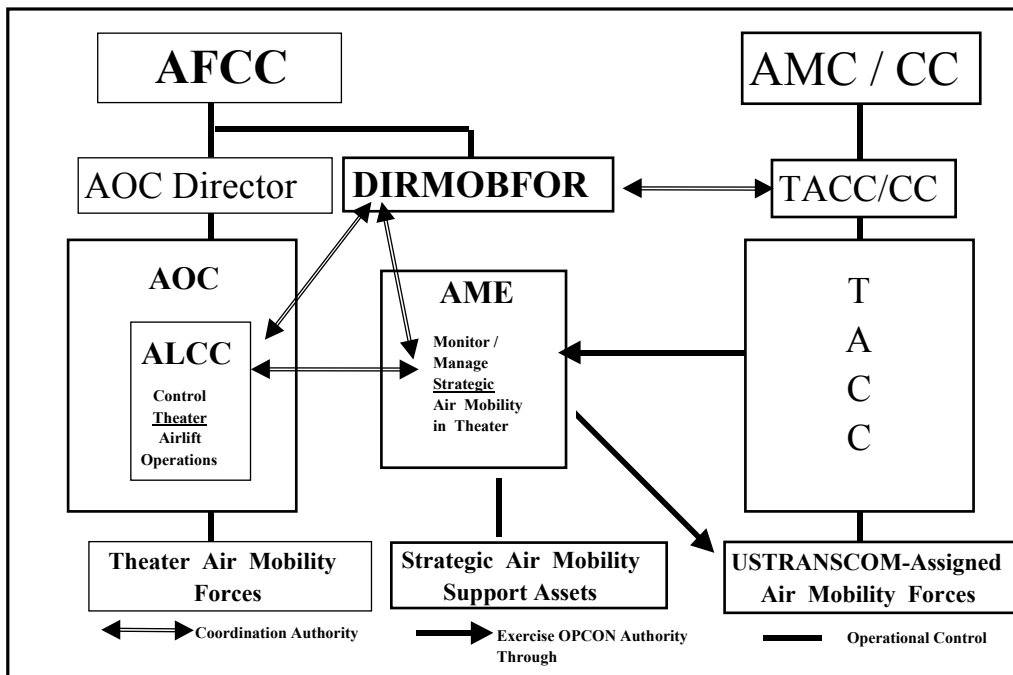


Figure 2-6. Global Reach Lay-down Structure
(Adapted from Lambaria, 1996)

Air Mobility C2 Today

Current USAF doctrine for employing air mobility forces in a contingency operation is very similar to the original Global Reach Lay-down (GRL) structure with some minor modifications. The two geographic unified commands with permanently assigned mobility assets, USAFE and PACAF, have replaced the former ALCC with an Air Mobility Operations Control Center (AMOCC). Figure 2-7 shows the peacetime C2 structure for air mobility forces aligned under USTRANSCOM and the theater CINCs.

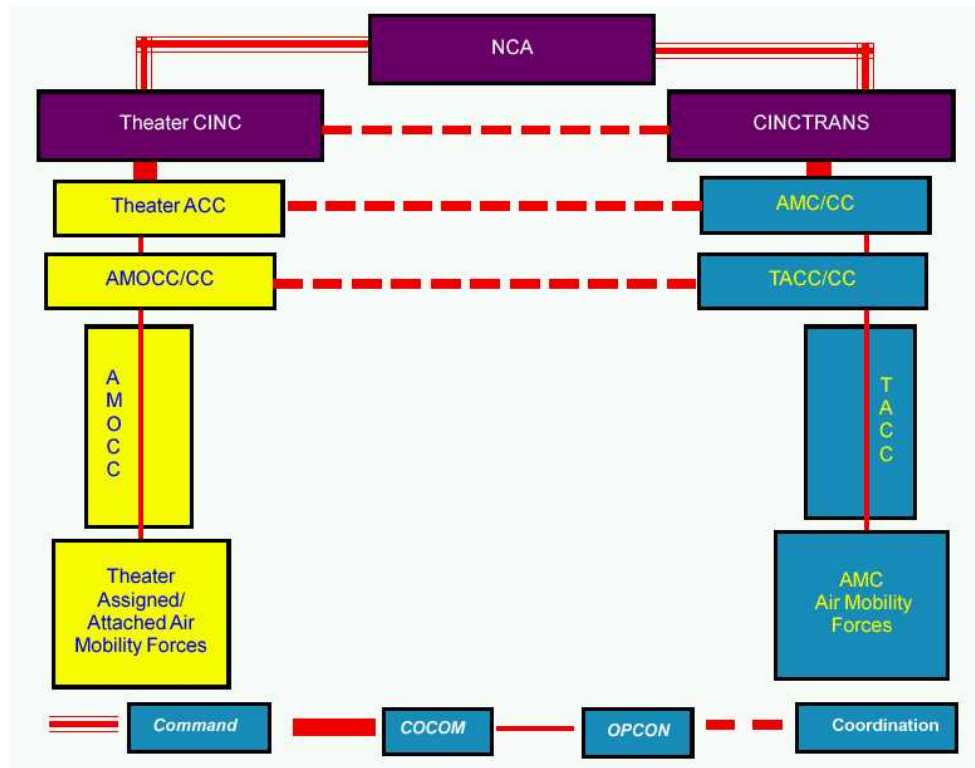


Figure 2-7. Peacetime Control of Air Mobility Forces
(AFDD 2-6, 1999: 26)

The AMOCC performs a TACC-like C2 function for theater assigned and attached air mobility forces during normal peacetime operations.

Peacetime assignment of common-user air mobility forces is primarily divided between Commander in Chief, US Transportation Command (USCINCTrans) and the European and Pacific theater CINCs.

Greater emphasis on joint operations with the sister services during contingencies drove the integration of the GRL structure into the larger framework of a functionally organized Joint Task Force (JTF). To facilitate this integration, USAF C2 organizational structure resembles

the air component structure of a JTF. Figure 2-8 depicts how mobility forces are currently organized in a JTF air component.

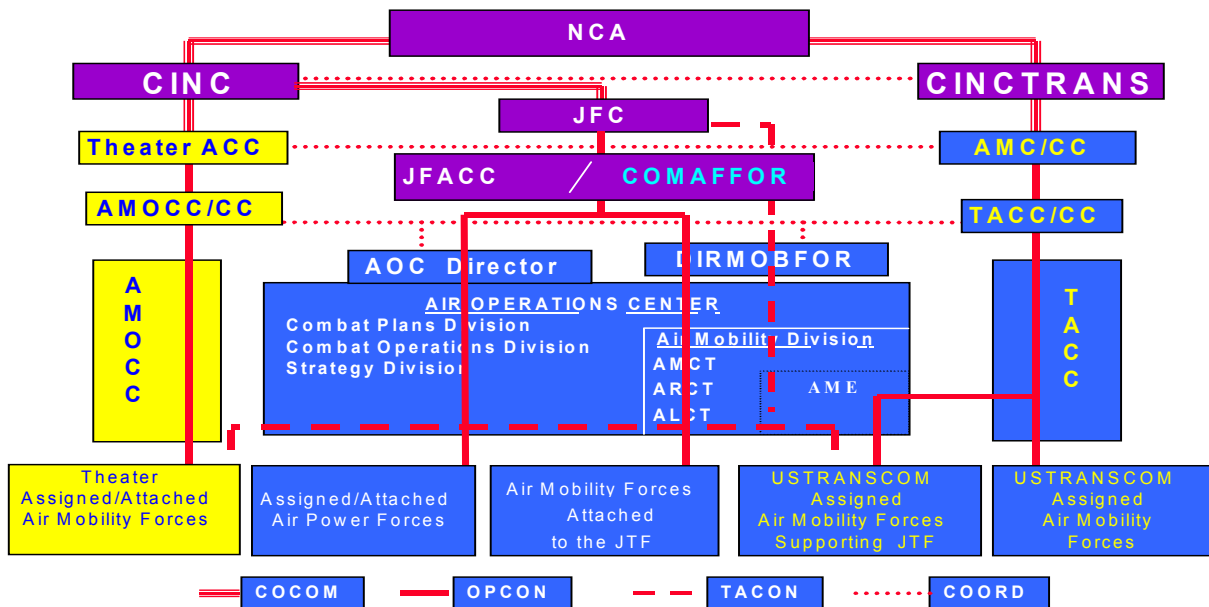


Figure 2-8. Contingency C2 Relationships for Air Mobility Forces
(AFDD 2-6, 1999: 29)

When contingency operations involve combat air forces, the AMD becomes one of the four core divisions of the Air Operations Center (AOC). In operations primarily involving MAF, such as HUMRO, there may be insufficient combat activity to warrant the formation of a full AOC. In these circumstances, Air Force doctrine suggests that, “The AOC consist primarily of an AMD and sufficient other expertise to control all air mobility operations within the AOR, to produce an air tasking order (ATO), and manage the required combat sorties.” (AFDD 2-6, 1999: 19) Regardless of the type of operation, doctrine is clear that in every

case there should only be one air commander, with one AOC within the AOR. For HUMRO type missions, when the preponderance of air forces are MAF, or for MAF-only operations, the air commander, normally the COMAFFOR or JFACC, may be dual-hatted as the DIRMOBFOR (AFDD 2, 2000: 67). A key difference, between combat centric and mobility centric operations, and one that affects organizational and command relationships, is that generally during HUMRO, air mobility operations switch from being a *supporting* air operation to being the *supported* air operation. Eliminating the need for combat forces allows an operation to concentrate on the air mobility aspects, but it does not necessarily simplify the C2 structure or the role of the DIRMOBFOR.

C2 in HUMRO

C2 relationships in HUMROs are often ambiguous and confusing. In one recent HUMRO, the wiring diagram reflecting the C2 structure was not fully understood or even created until the latter stages of the operation, just in time for the after-action report. The involvement of nongovernment organizations (NGO), private volunteer organizations (PVO), foreign governments and militaries, and international aid organizations (IO) contribute to the organizational uncertainty. Air Force Doctrine Document 2-3, Military Operations Other Than War (MOOTW),

briefly addresses the difficulty of rigidly defining C2 relationships in contingencies such as HUMRO.

Command and control relationships should remain flexible because there is no single C2 arrangement that works for all MOOTW situations. This is particularly true given that most operations other than war are multinational in nature. Variables affecting the C2 arrangement include the type of operation, specific mission objective(s), the existing host-nation C2 infrastructure (if applicable), and the participation of multinational partners as well as regional alliance organizations. (AFDD 2-3, 1996: 23)

The desire for flexibility expressed in AFDD 2-3 seems at first to contradict the need for predetermined plans as advocated by the Air Force's AFDD 2-6, Air Mobility Operations.

Rapidly developing crises leave little time for developing procedures, plans, and concepts describing the full integration of air mobility forces assigned, attached, deployed and transiting in theater. Supporting and supported commands must develop plans for integrated air mobility operations before contingency operations begin. Ideally, these plans will produce a single concept of operations (CONOPS), which can be modified to accommodate the specific circumstances of the operation at hand. This effort requires a clear understanding of potential taskings, customer requirements and capabilities/limitations of the air mobility system. (AFDD 2-6, 1999: 17)

The current proposed JTF C2 structure provides an organizational template for all air component forces, whether CAF, MAF, or both, that can be modified by the JTF commander or the JFACC/COMAFFOR as required. This common organizational concept for either combat or humanitarian operations satisfies the "single CONOPS" proposed in

AFDD 2-6, yet remains flexible enough to accommodate operations throughout the entire spectrum of conflict. The functional JTF framework allows an operation's scope to be expanded or reduced without extensive reorganization during the heat of a crisis.

Current Role of the DIRMOBFOR

Within the JTF structure, the role of the DIRMOBFOR is the same as intended in the original GRL package: To shape the deployed C2 structure as necessary to ensure a smooth mobility flow into, out of, and within the AOR. Air Force air mobility operations doctrine outlines the role of the DIRMOBFOR.

The DIRMOBFOR is the COMAFFOR's or the JFACC's designated coordinating authority for air mobility with all commands and agencies both internal and external to a joint force. The DIRMOBFOR is responsible for integrating the total air mobility effort for the JFACC/COMAFFOR. (AFDD 2-6, 1999: 20)

AMC Instruction 10-202 volume 7, more specifically defines the role and responsibilities of DIRMOBFOR:

- A) Provide direction and guidance to the AMD, ALCT, ARCT and AME in the theater operations center.
- B) Direct the integration of mobility support provided by USTRANSCOM-assigned air mobility forces.
- C) Direct the tasking of AMC air mobility forces (air and ground) placed under TACON of the JTF commander.

- D) Direct the tasking of theater air mobility forces (air and ground) placed under the OPCON/TACON of the JTF commander.
- E) Coordinate with the AOC Director to ensure all air mobility operations supporting the JTF are fully integrated with the ATO cycle and deconflicted with all other air operations.
- F) Coordinate with TACC commander on all USTRANSCOM air mobility missions to ensure the most effective use of those resources in accomplishing JTF, theater, and USTRANSCOM missions. (AMC, 1998: 3)

Assigning the DIRMOBFOR

When requested by a supported theater, USTRANSCOM via AMC will nominate a DIRMOBFOR. The supported theater may choose a DIRMOBFOR from within their own staff, but historically AMC personnel have filled the position. The supported theater CINC or JTF commander ultimately appoints the DIRMOBFOR, normally accepting the USTRANSCOM/AMC nominee. Typically the DIRMOBFOR is a rated (pilot or navigator) Colonel or Brigadier General holding a leadership position within AMC. Currently, eleven of the nineteen predesignated DIRMOBFORs and their deputies are either AMC wing commanders or vice wing commanders and the remaining officers hold leadership positions at the NAFs or in AMC wings (Air Mobility Command, 2000). DIRMOBFOR candidates are handpicked by the AMC senior leadership based on air mobility experience and personality. Consistently throughout this research the personality of the DIRMOBFOR was

stressed as an extremely important factor since the officer coordinates with so many different agencies to facilitate a smooth air mobility flow.

AMC also maintains a pool of predesignated DIRMOBFOR candidates. Appendix A contains the AMC predesignated DIRMOBFOR list as of 20 April 2000. Predesignating DIRMOBFORs allows officers to familiarized themselves with their assigned AOR and to develop working relationships with the unified command's staff before an actual contingency begins. It also allows USTRANSCOM to send the most experienced and capable personnel to the theater commanders as early as possible in a developing crisis (Air Mobility Command, 1998: 5). The predesignation program provides the designees prior notice that they are essentially on-call should a crisis occur in their assigned AOR. There are four basic categories of predesignated DIRMOBFOR: Unified command, contingency, disaster/humanitarian relief, and major exercise. Each of the unified commands is predesignated a DIRMOBFOR, and two officers from each NAF are designated as DIRMOBFORs for disaster relief in or near the CONUS. Additionally, three officers are predesignated for specific contingencies in the Pacific, African and Korean AORs. On a case-by-case basis, AMC tasks the NAFs to provide a DIRMOBFOR for major exercises such as Bright Star, Blue Flag, or Global Engagement (Air Mobility Command, 2000).

DIRMOBFOR Training

The prerequisite qualification for all DIRMOBFORs is that the officer must have an extensive background in air mobility operations and be familiar with the AOR (AMC, 1998: 3). By selecting career MAF officers, AMC ensures that the DIRMOBFOR has an extensive air mobility background and the predesignation program permits the nominated officers the chance to educate themselves on the peculiarities of their particular AOR. In addition, the Air Mobility Warfare Center located at Fort Dix, NJ, conducts a two-week classroom seminar for perspective DIRMOBFORs. The curriculum is established to prepare senior mobility officers for the unique circumstances they can expect to encounter when serving as a DIRMOBFOR. Perhaps the most pragmatic part of the course is the opportunity for veteran DIRMOBFORs to personally discuss their experiences and convey the lessons they learned on previous operations. Although the training offered by the AMWC is valuable to officers with potential to serve as DIRMOBFORs, it is not required.

Chapter III. Case Studies

Increasingly, US forces will be called upon to provide humanitarian assistance and disaster relief both at home and abroad. As one of the few nations in the world with the means to rapidly and effectively respond to disaster, many nations depend on us for assistance.

General Colin Powell
(Metz, 1995: 60)

Introduction

This chapter examines three HUMROs conducted since the USAF reorganized in 1992. While all three are classic HUMROs they are each unique in the way air mobility forces organized to accomplish the mission objectives of the JTF Commander. These operations illustrate how the generic air component structure of a JTF (Figure 2-7) can be tailored to satisfy specific mission objectives. They also highlight the pivotal role the DIRMOBFOR plays to seamlessly integrate strategic and theater airlift.

Operation Support Hope

Operation Support Hope began by presidential directive on 22 July 1994. A mysterious plane crash that killed the Rwandan and Burundi Presidents triggered bloody clashes between rival Hutu and Tutsi

populations in Rwanda. The Office of Foreign Disaster Assistance reported that the violence resulted in the dislocation or deaths of over two million people in a country with a population of only 8.1 million people (Metz, 1995: 68). Within hours of President Clinton's speech, which commenced the operation, Brigadier General (BG) Howard J. Ingersoll, 60 AW/CC, began his journey to Entebbe, Uganda where he functioned as both the JFACC and DIRMOBFOR until 31 August 1994 (Starr, 1995: 4). During the course of the operation, approximately 2,600 US personnel served in the AOR and USAF units operated out of six locations. Figure 3-1 shows the AOR and USAF operating locations.



Figure 3-1. Operation Support Hope AOR
(theodora.com, 5 June 2000 and Starr, 1995)

Operation Support Hope, which followed on the heels of Operation Restore Hope was one of the first large-scale HUMROs conducted after the USAF reorganization in 1992. The immensity and severity of the

humanitarian crisis coupled with the lack of a robust theater air mobility C2 capability and the absence of adequate support infrastructure in the Central Africa region justified the need for AMC to deploy six TALCEs and an Airlift Control Team. With Entebbe serving as the main operating base, the DIRMOBFOR organized air mobility assets into a hub and spoke operation. Most strategic airlift assets staged into Entebbe where theater airlift assets quickly distributed the relief supplies to the other bases. In some instances, strategic airlift delivered directly to the spoke operations, as was the case with the water purification unit delivered to Goma, Zaire, discussed in chapter 2. Organizing the air mobility assets in this manner was not preplanned, but rather occurred incrementally. Each location was dictated by either the massive humanitarian need, or because it provided infrastructure necessary to support air mobility operations.

BG Ingersoll noted during an interview, that Support Hope was one of the early operations where a DIRMOBFOR deployed as part of a JTF to direct air mobility operations and perhaps the only time that the DIRMOBFOR has been dual-hatted as the JFACC. The JTF/CC chose to keep the staff as lean as possible by not appointing service component commanders, so BG Ingersoll did not officially serve as the COMAFFOR. Figure 3-2 shows the C2 structure for Operation Support Hope. Dual-hatting the DIRMOBFOR as the JFACC streamlined the C2 structure,

provided mobility expertise for the air component operations, and facilitated direct communications with the JTF/CC.

There was also a Joint Special Operations Task Force (JSOTF) with an air component (JSOAC). Although the special operations air assets were not under OPCON of the JFACC/DIRMOBFOR, a close personal relationship between BG Ingersoll and the JSOAC director provided a direct line of coordination, giving the JFACC a total air picture. Referencing this informal but effective structure, BG Ingersoll commented that, “During conflict and crisis, it is personal friendships which give our doctrinal sword its sharp edges.” (Ingersoll, 2000)

When asked if he thought that dual-hatting the DIRMOBFOR as the JFACC in HUMRO was critical to the operation’s success, BG Ingersoll advised we should avoid the temptation to impose the organizational structure of Support Hope onto every future operation. He emphasized that the uniqueness of each operation requires the JTF/CC to sculpt the organizational structure in a way that best suits the mission and the CINC’s goals. He particularly stressed that open lines of communication were far more important to the success of Support Hope than any line on the organizational chart.

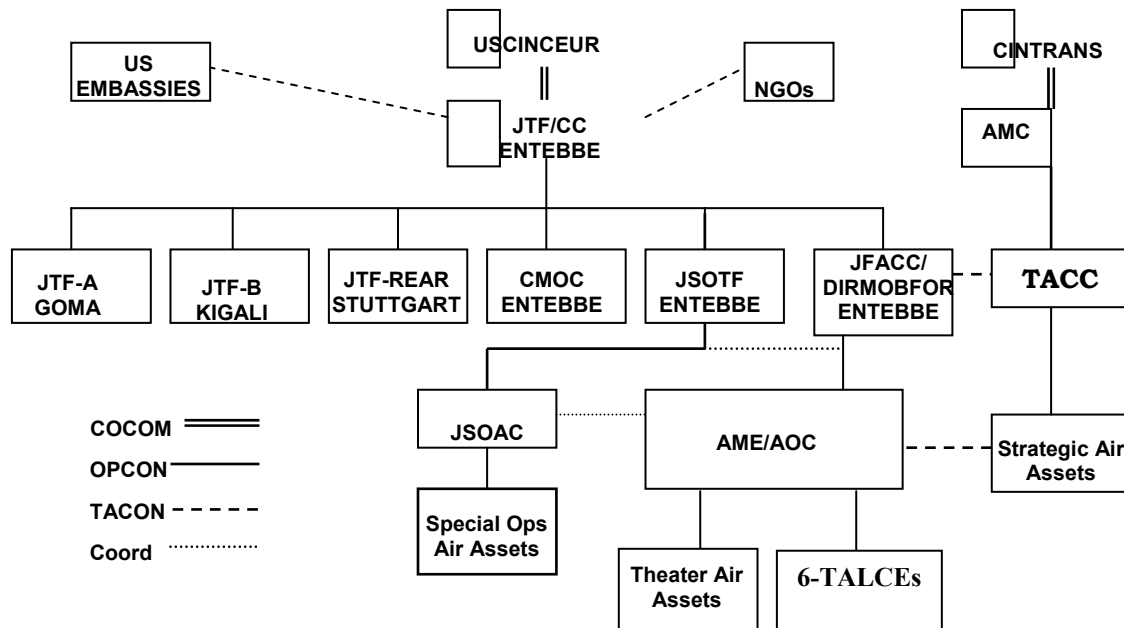


Figure 3-2. Operation Support Hope Air Component C2
 (Adapted from Metz, 1995: 70 and Ingersoll, 2000)

Operation Fuerte Apoyo

Operation Fuerte Apoyo (Spanish for strong support) began as a result of Hurricane Mitch's devastation in October 1998. The category 5 storm packed winds in excess of 180 miles per hour and tore a ragged swath through the heart of Central America, see figure 3-3. Mitch caused over \$3.5 billion in damage and displaced over 3.1 million people. The President formally directed the DOD to aid the stricken Central American countries on 6 November 1998. USSOUTHCOM, headquartered in Miami, Florida, shouldered the responsibility of creating a JTF to conduct the disaster relief mission.



Figure 3-3. Operation Fuerte Apoyo AOR
(cia.gov, 5 June 2000 and Dolle, 1998)

There was already a standing JTF structure organized in the SOUTHCOM AOR at Soto Cano Air Base, Honduras, which provided counter-drug support to Central and South American countries, JTF-Bravo (JTF-B). Due to the immense devastation in the region, CINCSOUTH decided to stand up a second JTF at Comalapa Air Base, El Salvador. Named JTF Aquila (Spanish for Eagle), JTF-A coordinated relief operations in Guatemala, El Salvador and Nicaragua, while JTF-B temporarily refocused their assets and efforts on relief operations in Honduras (Packett, 2000). The two JTFs working together on the same operation required a unique organizational structure. Figure 3-4 illustrates the basic C2 framework that evolved during the operation. The designated JFACC for USSOUTHCOM was the 12th Air Force

Commander located at Davis-Monthan AFB, Arizona. The JFACC's deputy represented the JFACC in the AOR as SOUTHAF Forward. SOUTHAF Forward maintained a theater level AOC and managed the assigned theater fixed-wing assets.

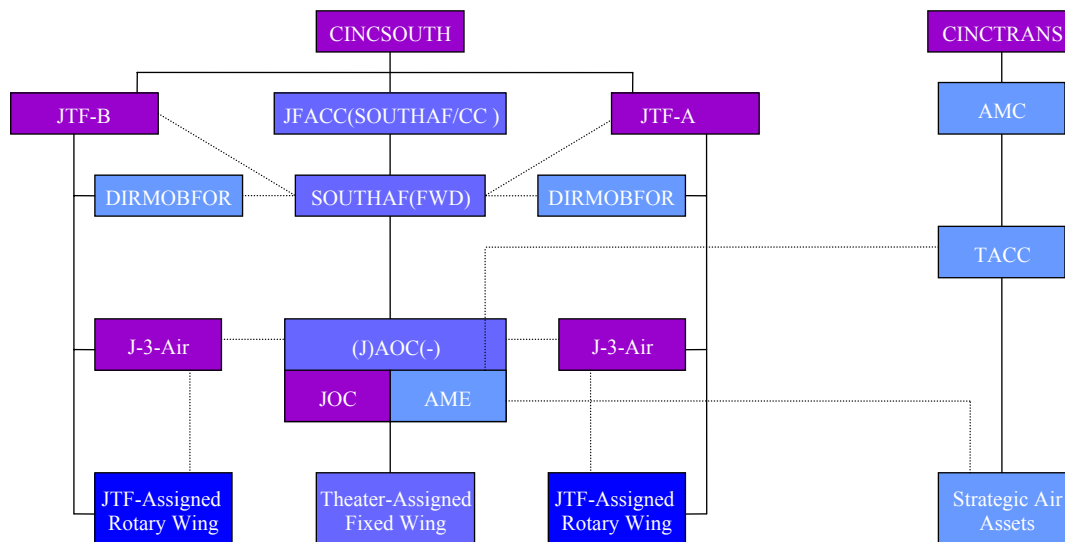


Figure 3-4. Operation Fuerte Apoyo Air Component C2 Structure
(Losi, 1999)

A single AME existed in the AOR providing strategic airlift interface to both JTFs. Two DIRMObFORs were assigned to the operation, one to each JTF. The DIRMObFOR for JTF-B also acted as the theater DIRMObFOR and established operations at Soto Cano Air Base to be near the JTF-B headquarters and the JFACC forward (Dolle, 1998: 1). Each JTF also maintained an air operations center (J-3 Air) to provide C2 for their assigned rotary-wing assets.

From the onset, this HUMRO operated very successfully with an unorthodox organizational structure. Colonel Peter C. Losi deployed as

the DIRMOBFOR for JTF-A. During an interview for this research he echoed a theme common to every veteran DIRMOBFOR interviewed. The three most important factors to orchestrating a successful operation are, “Communication, communication, and communication.” The necessity for the DIRMOBFOR to communicate and coordinate, vertically and horizontally, internally and externally to the JTF structure cannot be overstressed. Colonel Dennis Dolle, the DIRMOBFOR for the overall theater and JTF-B also emphasized this in his after action report. “The DIRMOBFOR coordinated continuously with TRANSCOM/MCC, AMC/TACC, USOUTHCOM/LRC and LNO, JTF-B/CC and staff, and Colonel Pete Losi at JTF-A.” (Dolle, 1998: 1) Selecting the right person to fill the role of the DIRMOBFOR and maintaining open lines of communication was far more critical to the operation’s success than how the air mobility C2 organized (Losi, 2000).

Colonel Losi reflected that no two operations will ever be the same, and the DIRMOBFOR should not be overly concerned with making the air mobility C2 fit the textbook mold. Rather, design the C2 architecture around operational necessity. Knowing and understanding current doctrine, but more importantly, the principles that govern the doctrine, is crucial because the situation may dictate that the DIRMOBFOR expand or modify previously accepted doctrine to accomplish the mission (Losi, 2000). Many other senior air mobility officers also espouse the view that

current USAF mobility operations doctrine should be used as a starting point when building the C2 structure, but it should not be viewed as the only blueprint for meeting a JTF's goals.

Operation Atlas Response

Severe flooding during the month of February 2000, in Southern Africa, particularly in the country of Mozambique, prompted European Command (EUCOM) to assemble a JTF eventually named, Atlas Response (European Command, 2000). Colonel S. Taco Gilbert III, 436 AW/CC, was AMC's predesignated DIRMObFOR to EUCOM for contingency actions on the African continent (AMC, 20 April 2000). He was already scheduled to deploy to Cameroon for Operation Brilliant Lion, a joint medical exercise, when he received the tasking for Atlas Response and joined the JTF planning staff at the Royal Air Force Base in Mildenhall, England. The early integration of the DIRMObFOR into the planning stages of the HUMRO allowed Colonel Gilbert to significantly influence selection of the intermediate-staging base (ISB). There were numerous constraints to conducting large-scale air mobility operations in Africa. Inadequate billeting, restricted fuel throughput and storage, lack of ramp space, and extensive flight time to reach the AOR along with other considerations impacted the decision to select Hoedspruit AFB, Republic of South Africa, as the most suitable ISB for

strategic airlift forces. Figure 3-5 highlights the AOR and the locations of personnel and assets that supported the operation. Maputo, Mozambique, the political center of gravity for the operation, was home to

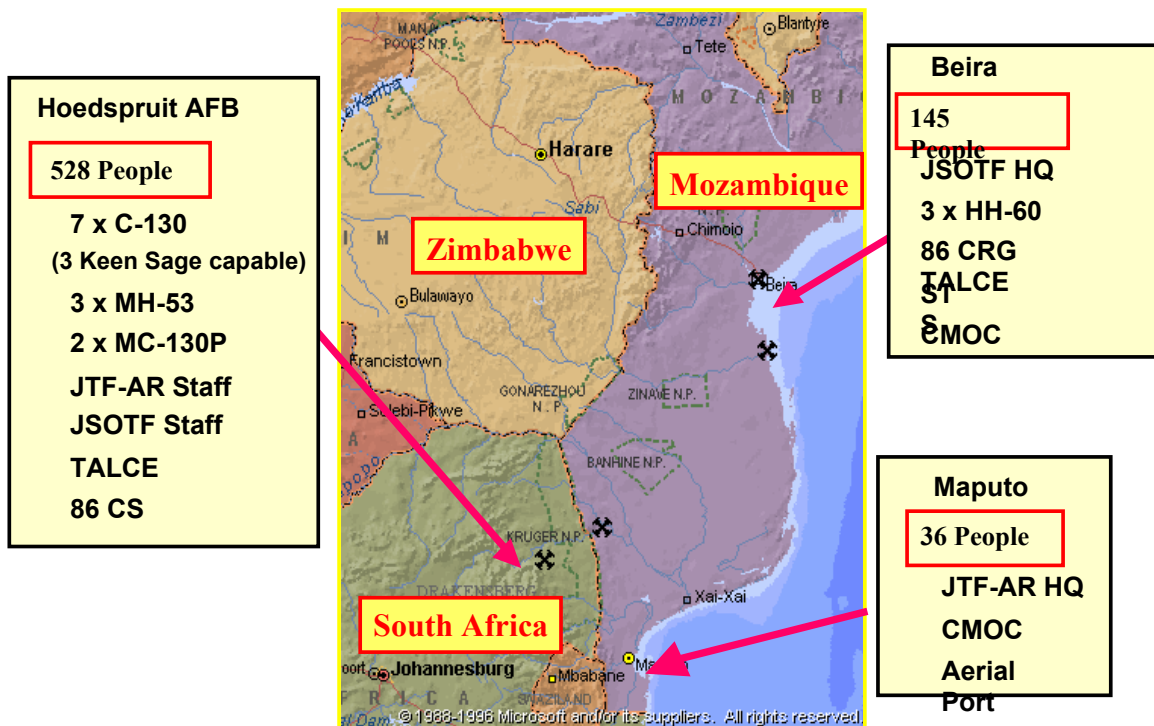


Figure 3-5. Operation Atlas Response AOR
(Gilbert, 2000)

JTF headquarters and the primary civil-military operations committee (CMOC). The JTF also establish a forward operating base (FOB) with aerial port at Maputo. Further North in Beira, Mozambique, the JSOTF set up headquarters and a FOB with the help of the 86th Contingency Response Group (CRG). The DIRMBOFOR's coordination with the TACC allowed elements of a TALCE to preposition in both Johannesburg and the Ascension Islands. Because of their close proximity to the AOR, the

TALCE arrived at the ISB within four hours after diplomatic clearance, constituting the first US military presence at the ISB. In an interview, Colonel Gilbert emphasized that the DIRMOBFOR's early involvement in the planning process provided the mobility expertise that allowed the JTF staff to foresee and avoid problems that could have crippled air mobility operations (Gilbert, 2000). Because the operation was strictly a humanitarian relief operation, MAF comprised the vast majority of air assets. Since CAF were not required in the theater, the AOC consisted of only the AMD with the DIRMOBFOR the AOC director as shown in Figure 3-6. Although Atlas Response was a JTF, the JTF/CC elected not to appoint a JFACC since only USAF assets comprised the air component. Instead, he appointed a COMMAFFOR to provide administrative control (ADCON) C2 for USAF forces supporting the operation. If a JFACC had been appointed, the COMAFFOR would most likely have filled this role. Even though mobility aircraft and the DIRMOBFOR assigned to the JTF reported to the COMAFFOR, the DIRMOBFOR, as the AOC Director, assumed most of the JFACC's responsibilities due to the air mobility focus of the operation. The absence a full AOC significantly reduced the COMAFFOR's responsibilities.

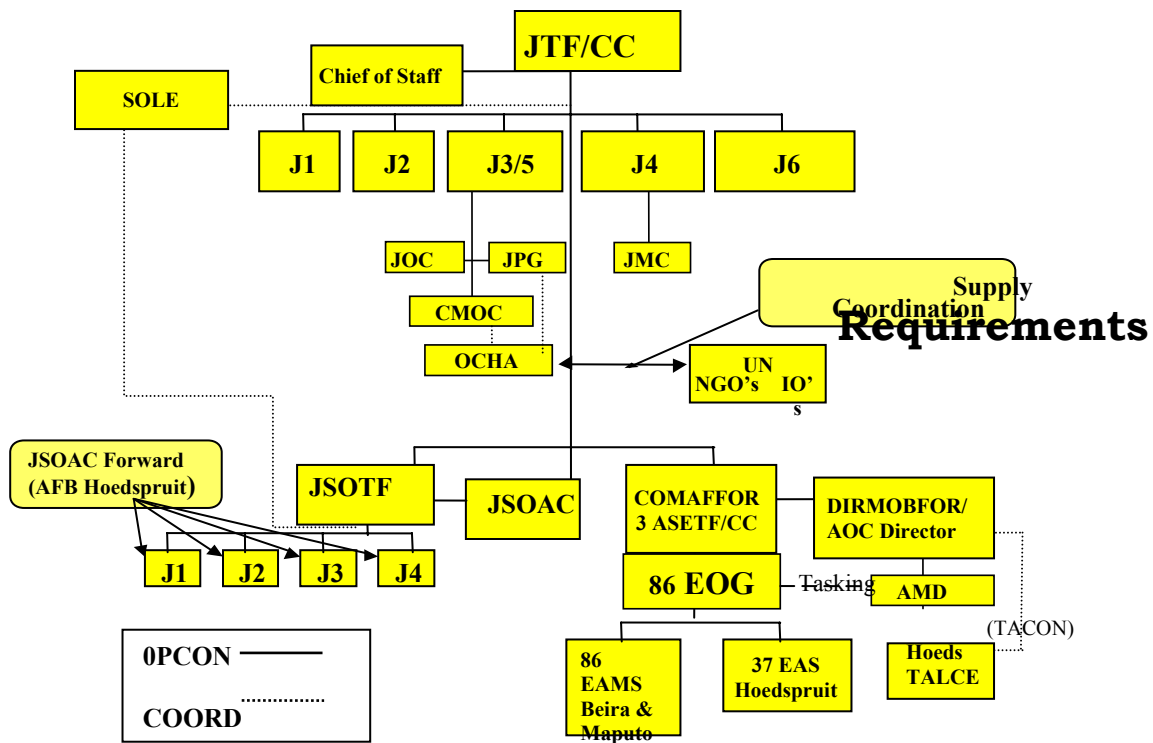


Figure 3-6. Operation Atlas Response Air Component C2 Structure
(Gilbert, 2000)

A JSOTF with a JSOAC also existed under the JTF structure, similar to Operation Support Hope. The lack of an appointed JFACC with OPCON or TACON over all aviation assets created the potential for conflict between aircraft assigned to the JSOTF and aircraft assigned to the COMAFFOR. The aircraft operated in the same airspace to support the same JTF. To deconflict the airlift and special operations, the JSOTF established a JSOAC staff at Hoedspruit AFB. The JSOAC functioned as the special operations liaison element (SOLE) and worked together with the AMD to eliminate the conflicts that arose from sharing common

airspace. While the arrangement worked at the operational level, assigning a JFACC to oversee both air mobility assets and the aviation special operations forces (SOF) could prevent this potential crack in the C2 structure. AFDD 2 supports this concept, “If aviation assets are assigned primarily in support of the theater air operation, then the JTF/CC may assign control of those assets to the JFACC.” The doctrine goes on to say, “In order to ensure the correct employment of forces, the JTF SOCC provides the JFACC a SOLE to coordinate, deconflict, and integrate special operations, strategy and plans with conventional air.” (AFDD 2, 2000: 57) A safer operating environment could have been ensured by establishing a singular C2 structure for all air assets rather than the AMD and the JSOAC working ad hoc to ensure aircraft deconfliction.

JTF Atlas Response was also very similar to Operation Fuerte Apoyo in that the C2 structure was not always clear. During the interview for this research Colonel Gilbert stated that when he was putting together his after action report and briefing, building the JTF organization chart was one of the most difficult parts. Despite a very successful operation, attempting to depict the actual C2 with definitive lines and boxes proved very challenging. As is the case with many HUMROs, C2 channels were often confusing, even during the height of operations. Colonel Gilbert credited the professionalism and hard work

of the personnel assigned to the operation in overcoming the ambiguity of C2 relationships (Gilbert, 2000: interview).

Chapter IV. Conclusion

Air Mobility is America's backbone of deterrence. Air Mobility provides America's wings of freedom.

General Robert E. "Dutch" Huyser
(Airlift Tanker Association, 2000)

Summary

General Ronald R. Fogleman, former USCINCTrans and USAF chief of staff, called air mobility, "The linchpin of National Military Strategy." (AMC, 1992: 2) Others have called air mobility the great enabler for America to maintain its influence and power across the spectrum of conflict. Whatever the term used to describe it, air mobility is an integrated system of people, platforms, information, and support that is often not recognized as essential to American foreign policy and national security (Hutcheson, 1997: 132). There is no doubt, that without air mobility it would be near impossible for America to maintain the preeminence she enjoys today. The ability to provide rapid global mobility throughout the spectrum of conflict hinges on a C2 architecture that integrates the strategic mobility assets from the CONUS seamlessly with theater mobility assets in the AOR. The DIRMOBFOR is the synergistic link between strategic and theater air mobility C2, and in air mobility centric HUMROs such as Operations Support Hope, Fuerte Apoyo, and Atlas Response, the DIRMOBFOR's role is even more critical.

Conclusions

Current USAF doctrine provides a C2 architecture that is effective and flexible, advocating an air component structure that can be quickly tailored to fight a major theater war or respond to a humanitarian disaster. This flexibility allows a JTF/CC to customize an operation's staff to address the crisis at hand. Since the 1992 reorganization, the USAF has demonstrated the malleability of the current doctrinal air component C2 structure across the spectrum of conflict, from humanitarian relief (Operation Support Hope) to a combat air offensive (Operation Allied Force). Each operation adapted the common C2 structure to suit the particular mission requirements.

The desire to keep the C2 organization flexible does not justify the lack of specific doctrine devoted to the employment of air mobility in HUMRO. The dynamic and ambiguous nature of C2 relationships in HUMROs deserves more attention to save each operation from reinventing the wheel. Some argue that doctrine is not the proper forum to address the intricate details of specific operational missions such as disaster or humanitarian relief. One senior officer suggested that, "Our doctrine is about right, more doctrine is probably not what we need," and another former DIRMObFOR chided, "Don't let doctrine get in the way of doing your job." Whatever the proper venue, most officers interviewed conceded that more comprehensive direction is needed to capture the

eccentricities of employing air mobility assets in HUMROs and to prepare future DIRMOBFORs to operate most effectively in this mission scenario.

Early inclusion of the DIRMOBFOR into the planning stages of a crisis response is essential for the smooth integration of air mobility into a HUMRO. AMC's predesignated DIRMOBFOR program provides the opportunity for designees to familiarize themselves with their assigned AOR and cultivate the personal relationships essential to effective operations even before a crisis erupts. USAFE in particular, seems to embrace the GRL and predesignated DIRMOBFOR concept because it provides the theater commander with a rapidly deployable air mobility C2 capability without having to maintain the permanent structure in the theater. The successful integration of air mobility into recent operations such as Atlas Response and Allied Force corroborates the efficacy of the GRL and the DIRMOBFOR predesignation program.

Within USAF circles, the role of the DIRMOBFOR is fairly well understood. The same cannot be said throughout the joint military community. US military forces will increasingly deploy under the umbrella of a JTF. In the words of Colonel Rusty Findley, 436 AW/CC, the USAF mobility community needs to "spread the gospel," and evangelize the other service components, educating them about what the DIRMOBFOR contributes to the fight (Findley, 2000).

One of the most important lessons learned in this research is the necessity of centralized C2 for all air assets in HUMROs. In combat operations a JFACC or COMAFFOR is given OPCON or TACON of all AO air assets. However in both Operations Support Hope and Atlas Response, SOF aviation assets and air mobility assets supporting the AO reported through separate chains of command. The SOF and mobility leadership ensured safe operations by coordinating airspace and deconflicting aircraft on an ad hoc basis. In future operations it would be advisable to formally place all air assets operating in the AO under a singular chain of command.

The characteristics inherent in AMC's air mobility system, speed, flexibility, and reliability, give leadership confronted with a HUMRO the ideal solution for distributing relief supplies. The DIRMOBFOR maintains visibility of the strategic and theater air mobility assets for USTRANSCOM, AMC, TACC, the theater CINC, and the JTF/CC. But the DIRMOBFOR does not necessarily have visibility on other modes of available transportation. Every DIRMOBFOR interviewed expressed the need to consider the synergies offered by other modes of transportation to distribute aid during HUMRO. One possible solution is to assign a director of mobility forces for each mode of transportation to the JTF J3/J4 rather than assigning airlift, sealift, and surface transportation experts to separate functional component commanders. This concept

would provide a total mobility picture for the JTF/CC and present viable options rather than viewing air mobility as the transportation panacea for an operation (Calvano, 1999: 43).

The role of air mobility in HUMRO is certain. It will continue to be the preeminent mode of transportation for commanders in crisis situations. The specific role of the DIRMObFOR is less certain, but unquestionably essential. As the USAF continues to include the lessons learned from future operations in a rapidly changing world, our doctrine and strategy will no doubt evolve and improve. What must not change is the ability of the air mobility C2 system to quickly adapt to mission requirements throughout the entire spectrum of conflict.

Recommendations for Further Study

Throughout this research several topics continued to reappear which merit further investigation. The USAF implemented the Expeditionary Air Force (EAF) concept in 1998, but mobility air forces do not integrate smoothly into the EAF structure. Additional research into how the EAF supports large scale HUMROs as more data becomes available is warranted. Also, a critical analysis of AMC's Lead Mobility Wing (LMW) concept and how it will employ with or augment our current GRL package is needed. Currently HUMROs are viewed in the context of the military's crisis action planning process. Research into the feasibility

of using a more extensive deliberate planning process for providing humanitarian and disaster relief may provide a more organized approach to conducting military-led HUMROs in the future.

Appendix A. Predesignated DIRMObFOR List 20 April 2000

UNIFIED COMMANDS

	<u>DIRMOBFOR</u>	<u>DEPUTY</u>
CENTCOM	BGen Mentemeyer 305 AW/CC	Col Mills 436 AW/CV
EUCOM	BGen Bishop 437 AW/CC (Apr PCS)	Col Stewart 43 OG/CD
	BG Starbuck – TRANSCOM nominated, awaiting EUCOM approval	
JFCOM	BGen(S) Casey 43 AW/CC	Col Young 89 AW/CV
SOUTHCOM	BGen(S) Diehl 6 ARW/CC	Col Baker 43 AW/CV
PACOM	BGen Rasmussen 15 AF/CV	Col Maul 15 AF/DO

DISASTER RELIEF CO-DIRMObFORS

15 AF	Col Joseph 375 AW/CV	
15 AF	Col Dolle (Retiring – Mid-00) 92 OG/IG Replacement to be nominated	
21 AF	Col Smith 305 AMW/CV	
21 AF	Col Bradley 463 AG/CD	
PACIFIC AREA DISASTERS	Col Jones (Dual hat duty to LNO) 615 AMSG/CC	
AFRICA	Col Gilbert 436 AW/CC	Col Crist 6 ARW/CV Rep. needed
KOREA 7 AF	BGen Rasmussen 15 AF/CV	Col Maul 15 AF/DO

MAJOR EXERCISES

Forecasted - Current Status

RSO&I	BGen Rasmussen
Blue Flag 00-4	BGen(S) Diehl / Col Baker
Global Engagement	Col Wuesthoff / Col Bradley

(OPR: HQ AMC/DOOM)

Appendix B. Acronyms

A

ACC	Air Combat Command
ADCON	Administrative Control
AFCC	Air Force Component Commander
AFDD	Air Force Doctrine Document
ALD	Airlift Division
AFCC	Air Force Component Commander
ALCC	Airlift Control Center
AMC	Air Mobility Command
AMD	Air Mobility Division
AME	Air Mobility Element
AMOCC	Air Mobility Operations Control Center
AO	Area of Operations
AOC	Air Operations Center
AOR	Area of Responsibility
ASETF	Aerospace Expeditionary Task Force
ARCT	Air Refueling Control Team
AW	Airlift Wing

C

C2	Command and Control
CAF	Combat Air Forces
CC	Commander
CINC	Commander in Chief
CMOC	Civil-Military Operations Center
COC	Chain of Command
COCOM	Combatant Command
COMAFFOR	Commander of Air Force Forces
COMALF	Commander of Airlift Forces
CONOPS	Concept of Operations
CONUS	Continental United States

B

DIRMOBFOR	Director of Mobility Forces
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E

EAMS	Expeditionary Aircraft Maintenance Squadron
EAS	Expeditionary Airlift Squadron
EOG	Expeditionary Operations Group

G

GRL Global Reach Lay-down

H

HUMRO Humanitarian Relief Operation

I

ISB Intermediate Staging Base

IO International Organization

J

J1 Personnel

J2 Intelligence

J3 Operations

J4 Logistics

J5 Plans

J6 Communications

JOC Joint Operations Center

JFACC Joint Forces Air Component Commander

JFSOCC Joint Forces Special Operations Commander

JMC Joint Movement Center

JPG Joint Planning Group

JSOAC Joint Special Operations Air Component

JSOTF Joint Special Operations Task Force

JTF Joint Task Force

L

LMW Lead Mobility Wing

LNO Liaison Officer

LRC Logistics Resource Center

M

MAC Military Airlift Command

MAF Mobility Air Forces

MCC Mission Control Center

MOOTW Military Operations Other Than War

N

NAF Numbered Air Force

NATO North Atlantic Treaty Organization

NGO Non-Government Organization

O

OCHA Office of Civil Humanitarian Assistance

OPCON Operational Control

P

PACAF Pacific Air Forces
PACOM Pacific Command

R

RAF Royal Air Force

S

SOCC Special Operations Component Commander
SOLE Special Operation Liaison Element
STS Special Tactics Squadron

T

TACC Tanker Airlift Control Center
TACON Tactical Control
TALCE Tanker Airlift Control Element
TLA Three Letter Acronym

U

UN United Nations
USAF United States Air Force
USAFE United States Air Forces in Europe
USCINCEUR Commander in Chief, USEUCOM
USCINCPAC Commander in Chief, USPACOM
USCINCTRANS Commander in Chief, USTRANSCOM
USEUCOM United States European Command
USPACOM United States Pacific Command
USTRANSCOM United States Transportation Command

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Vita

Major Timothy E. Bush was born in the Heart of Dixie, Tuscaloosa, Alabama. He was appointed to the United States Air Force Academy and graduated in 1988 with Bachelor of Science in General Engineering. His first assignment after commissioning was to Wright Patterson AFB, OH as a project manager in Aeronautical Systems Division, Deputy for Development Planning (ASD/XRS). In 1991 he entered Undergraduate Pilot Training at Columbus AFB, MS. After receiving his wings in 1992, he chose to fly the venerable KC-135 Statotanker stationed at Malmstrom AFB, MT. In 1996 he helped coordinate the 91 Air Refueling Squadron's unit move to MacDill AFB, FL. He entered Air Mobility Command's Advanced Studies of Air Mobility (ASAM) Masters Degree program in 1999. Upon graduation from ASAM Major Bush will attend the Air Command and Staff College at Maxwell AFB, AL.

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